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Communication Analysis of Rubber Farmers in Riau Province, Indonesia

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ABSTRACT

Communication is an essential part of the process of development. Therefore, effective communication is needed to achieve development goals. Rubber is the second largest commodity in Riau Province, after oil palm, and most of rubber commodities are managed by independent rubber farmers. Successful development of rubber farming is needed in order to increase the income and welfare of rubber farmers. However, effective communication is needed to achieve these objectives. The objectives of this study is (1) to describe the internal and external characteristics of rubber farmers, (2) to describe element of communication of rubber farmers in Riau Province. Research was conducted in two potential rubber commodity districts in Riau Province, e.g Kuantan Singingi Regency and Kampar Regency. Respondents in this study were determined by objective sampling and random sampling methods, with 143 rubber farmers as respondents. The results showed the internal characteristics and external characteristics of the rubber farmers in an adequately supportive category. In order for effective communication in farmer group institutions (group communication), it is necessary to increase the intensity of extension, appropriate media extension and increase the number of information sources that are easily accessible by rubber farmers.

Keywords: communication; development goals; rubber farmers; extension channels; farmers characteristics

INTRODUCTION

Communication is the process of transmitting messages from one individual to another. (Adu-Oppong and Agyin-Birikorang 2016) (Kelvin-Iloafu 2016) (Amit and Singh 2014). If the sending of messages from the sender to the receiver is followed by feedback from the receiver, communication will be efficient. This indicates that the recipient understands the meaning of the message sent (Femi, 2014). According to Adigwe and Okoro (2016), communication is the

process of transmitting feelings, beliefs and circumstances between individuals and groups in order to achieve desires both verbally and nonverbally.

Communication plays an important role in the organization, as mentioned by Agarwal (2012). A sense of concern, anxiety, and togetherness need to be considered when interacting in order to achieve the desired improvement. Motivating members of the importance of change and the benefits of the organization will inspire members to engage in the expected improvements and attempts to execute these plans (Husain 2013).

Data from the Central Statistics Agency (BPS) of the Riau Province in 2017 on the level of production and area of district rubber land in Riau shows that the area of land and the amount of rubber production have decreased. Decreased land area and the amount of rubber production can be caused by a number of reasons, one of which is due to the inadequate communication of farmers in self-sustaining rubber farming. The productivity of rubber produced by farmers in rubber farming has not completely applied the knowledge they have acquired from extension workers.

Shonubi and Akintaro (2016) state that the function of communication may be categorized into social communication functions; business communication functions; information distribution functions; communication development functions; and intercultural communication functions. Good communication conveys the message and the purpose of the communicator to the communicator in such a way that the communicator understands the message, even if there are some gaps between the communicator and the communicator (Bucăţa and Rizescu 2017). That is the reason why an effective communication is two-way communication (Abbasi, Siddiqi and Azim 2011).

The purpose of this study is to examine the level of communication efficiency of independent rubber farmers in the Riau province. Knowing the degree of communication efficacy of the rubber farmers' self-help pattern would serve as a guideline for extension staff and the government to make improvements or deliver messages that become successful. Hence it is hoped that independent rubber farmers will be able to understand the information and apply the knowledge gained in the production of rubber plants that they will be able to increase the production and living standards of the farmers.

METHOD

This research was conducted in Riau Province, Indonesia. This research approach uses a survey method through direct and in-depth interviews with respondents with a questionnaire guide that has been prepared in advance. The method of sampling used in this study is purposive sampling method. To represent the population, a sample of 143 self-help rubber farmers who have been members of the community of farmers and have been involved in the extension of rubber plantations for the last 5 years has been collected. Summated Likert Rating (SLR) scale and descriptive analysis are used to answer the research objectives; knowing the internal and external characteristics of respondents.

DISCUSSION

INTERNAL CHARACTERISTICS OF RUBBER FARMERS

Personal characteristics and forms of communication have an effect on organizational productivity (Solaja, Idowu and James 2016). In order to boost the agricultural sector, it is

important to concentrate on the human resources aspect (Krishnamurthy, Lakshminarayana and Nishitha 2018). Most of the organizational challenges are related to inadequate internal communication. Internal contact is also an important part of its performance in an organisation (Chmielecki 2015).

Age

Age is one of the factors that affect the success of a company, since age is a measure of the performance and abilities of an individual.

TABLE 6: Distribution of Rubber Farmers by Age Group

No	Age	Amount (person)	Percentage(%)
1	Young (<15)	0	0
2	Productive (15-64)	138	96,5
3	Nonproductive (>64)	5	3,5
	Total	143	100

Based on Table 6, the age distribution of rubber farmers in the province of Riau is almost entirely in the productive age group, which include 138 farmers and 5 other farmers of unproductive age. This shows that the rubber respondents readily absorb data provided by communicators (extension agents, leaders of farmers' groups, and other sources) on rubber farming. This condition indicates that the respondent farmers are physically strong in general and have the ability to be productive in rubber farming.

Level of Education

The level of education has a huge impact on the economic and social life of the community. Education is very influential in one 's thinking in giving, receiving and implementing innovation in any field.

TABLE 7: Rubber Farmers Distribution based on Education Level

No	Education Level	Amount (person)	Percentage(%)
1	Not graduated from elementary school - elementary school	45	31,5
2	Middle school - high school	88	61,5
3	Diploma - Bachelor	10	7
	Total	143	100

Number of Dependents Families

The number of family members will have an impact on the income and expenditure of the respondent farmer household in order to meet the family members' living needs and affect the level of farm welfare. This can be seen in the following table 8.

TABLE 8: Rubber Farmers Distribution based on Number of Dependent Family

No	Number of dependent family	Amount (person)	Percentage(%)
1	5 - 6 person	15	10,5
2	3 - 4 person	77	53,8
3	1 - 2 person	51	35,7
	Total	143	100

Table 8 shows that the condition states that the number of dependent rubber farmers in Riau Province is classified as moderate (3-4 people). The number of family dependents affects the head of the family at work in order to be able to meet the needs of the family.

Farming Experience

Experience is the knowledge that a person has, such as being able to accept new things in the learning process. In addition, they will be better prepared to go ahead and develop his business and minimize the risks that will arise. Table 9 below shows the level of experience of farmers in running their business.

TABLE 9: Distribution of Rubber Farmers by Level of Farming Experience

No	Farming Experience	Amount (person)	Percentage(%)
1	3 - 17 years	81	56,6
2	18 - 32 years	57	39,9
3	33 - 47 years	5	3,5
	Total	143	100

With the experience of farming that has been owned, it will certainly facilitate farmers in conducting rubber farming activities. Farming experience is a determining factor for a farmer's success in farming, this also applies to rubber farmers in Riau Province.

Land Tenure Area

Land tenure is one of the benchmarks for the success of the respondent in using existing agricultural resources. In this study, the land owned by the respondent is used for the development of rubber farming.

TABLE 10. Distribution of Rubber Farmers Based on Land Ownership Area

No	Land Area	Amount (person)	Percentage(%)
1	0,5 Ha (narrow land)	14	9,8
2	>0,6 Ha - 2 Ha (medium land)	113	79
3	> 2 Ha (large land)	16	11,2
	Total	143	100

From the table above, it can be seen that the property of the rubber farmers is in the medium-land category or 0,6 ha-2 ha consisting of 113 or 79% of the population. In the meantime, 14 rubber farmers or around 9.8% are in the narrow land category (0.5 ha). The last category, large land comprising more than 2 hectares, consists of 16 or 11,2 % rubber farmers. On the basis of the information provided by the head of the farmer groups, it was claimed that rubber land owned by farmers was generally a grant from the government.

Cosmopolitan

Cosmopolitan is one's ability to cope with a very broad environment. While the level of cosmopolitan studied in this research was the respondent's efforts in finding information about problems in rubber farming, attending counseling activities related to rubber farming, respondent activities in receiving new ideas from outsiders, and contacting extension agents, community leaders, farmers outside the farmer groups and agriculture services. Besides,

respondents also sought information through mass media and the internet to overcome farming problems.

TABLE 11. The Cosmopolitan of Rubber Farmers in Riau Province

No	Description	Score	Category
1.	Farmers read information about the knowledge of rubber farming through mass media.	1,54	Low
2.	Farmers mingle with other farmers to seek information on rubber farming.	1,97	Medium
3.	Farmers travel to a location (outside the area) to search for information on the knowledge of rubber farming.	1,43	Low
Total Score		4,94	
Average score		1,65	Medium

On the basis of Table 11, the cosmopolitan rubber farmer in the province of Riau is in a low category with an average score of 1.65. This shows that rubber farmers in the province of Riau are less active in reading information about rubber farming through mass media such as newspapers, magazines , the internet, youtube, official websites and others. This is because the capacity of farmers to control the mass media is still low. Farmers are also less active in socializing with extension agents, and farmers can contact extension workers by phone if they need to. Most farmers do not travel to a certain place to seek knowledge or training in rubber farming. Farmers are just waiting for advice to be given in their respective villages. It is assume that the farmers do not really have the initiative to travel outside the region to obtain information on rubber farming.

Farmers who have high education such as diploma and bachelor usually active in reading information about rubber farming through mass media (magazines, youtube, internet), associating with extension agents, and traveling outside the area to find information on rubber farming. This is because farmers have a great sense of thinking and awareness of the importance of information on rubber farming.

External Characteristics of Farmers

Extension Intensity

The intensity of extension aims at the process of involving someone to communicate information consciously with the aim of helping others to provide opinions so that they can make the right decisions. See Table 12 below for the extent of the current expansion of rubber farmers in the Riau Province.

TABLE 12. Intensity of Extension for Rubber Farmers in Riau Province

No.	Description	Answer	%	Score	Category
1.	Extension agents provide extension	1= 30 persons	20,98		
		2= 68 persons	47,55	2,10	Medium
		3= 45 persons	31,47		
2.	Adequacy of extension intensity	1= 25 persons	17,48		
		2= 55 persons	38,46	2,27	Medium
		3= 63 persons	44,06		
Total score				4,37	
Average score				2,19	Medium

On the basis of Table 12, the intensity of the extension of farmers in the province of Riau was fairly well implemented. It can be seen from the score of 2.19 in the medium category,

the intensity of the extension in Kampar Regency, that is, the extension workers rarely carry out direct extensions. Extension officers conduct only remote evaluations of farmers, and extension workers rarely go directly to the field. However, these extension activities still exist, because farmers can ask questions to extension workers, even if only through cell phones.

Based on information from a farmer group leader in 2015, there was submission of a request for assistance for replanting rubber gardens to the Riau Provincial Plantation Office. The request was accepted in 2018, before the assistance of rubber seedlings for the replanting period was distributed to farmers, farmers were first given training by extension agents on inputs (upstream subsystem), cultivation of rubber plants (on farm subsystem) and government policies (supporting subsystems) for three days at the Tanjung Alai village prayer room, and then the extension worker will carry out evaluation or control according to the specified schedule, which is 3 times a month.

This meeting is expected to be a forum for farmers and farmer group leaders to discuss and to find solutions of problems encountered by farmers in rubber farming. In reality, however, it did not go as planned. Farmers who are busy and unaware abandon the meetings and make the meeting gradually become inactive to hold meetings three times a month. So that the extension worker only consults or controls remotely using a cell phone (handphone).

According to Mr. Iwandri and Mr. Yuridis, the chief and the secretary of the Kulim River farmer group, Batu Bersurat Village, in 2018 the farmer group received agricultural machinery from the Department of Food Crops, Horticulture and Plantation of Riau Province in the form of a three-wheeled vehicles (VIAR) to help farmers in transporting rubber products. Extension is only done at the time of the assistance. At the moment the farmer group meeting is only conducted by the chair of the farmer group and members who have an awareness of the need to discuss and find solutions to the problems encountered in rubber farming.

Mr. Toharudin, the leader of the Gulamo River farmer group, Batu Bersurat Urban Village, states that in 2015 the farmer group received assistance for the construction of a rubber plantation (replanting) from the Plantation Office, Kampar Regency. At the beginning of the distribution of rubber seedlings, the extension agents provided extension on production facilities (upstream subsystems), rubber cultivation (subsystems on-farm) and government policies (supporting subsystems). However, for the next evaluation, the extension agent directly visited the farmer, and the farmer discussed face to face with the extension agent at the time of the visit. This visit is carried out at an unspecified time, usually, the extension agents evaluate 3 times a year.

While the extension intensity in Kuantan Singingi District is quite often held by extension agents and the farmers response toward the meeting is quite well. The extension agents conduct extension to farmer group members once or twice a week. The extension was utilized quite well by members of the farmer group. The farmers seized the opportunities by giving questions to the extension agents. When the questions are not answered fully by the extension agents, it was common for some farmers to ask again when the extension are done.

Accuracy of Extension Channels

There are several parts of the extension channels, like in the form of direct communication between farmers and extension workers or through the use of aid devices such as mass media in extension activities. The accuracy of the extension channels is the suitability of farmers to obtain information from extension agents where extension workers provide information in accordance with the needs or problems of farmers to increase the income of rubber farmers. To

see how the accuracy of the extension channels currently running can be seen in Table 13 below.

TABLE 13. The Accuracy of rubber farmers Extension Channel in Koto Kampar XIII District

No.	Description	Answer	%	Score	category
1.	Communication channel with direct delivery (lecture and discussion)	1= 29persons	20,28		
		2= 83persons	58,04	2,01	Medium
		3= 31 persons	21,68		
2.	Accuracy of extension information communication channels	1= 19persons	13,29		
		2= 81persons	56,64	2,17	Medium
		3= 43persons	30,07		
Total score				4,18	
Average score				2,09	medium

Based on Table 13, the accuracy of the extension program for rubber farmers in Riau Province is in the medium category with an average score of 2.09. It shows that the communication channel with a direct method (lecture and discussion) is in the medium category with a score of 2.01 or considered as quite good by some farmers. From the accuracy of the target of the extension communication channel also in the medium category with a score of 2.17 or considered less precise by some farmers.

After lecturing and discussion from the extension agents, the rubber farmers received at least 50% from the materials given. It is only just knowing and understanding, not applicable for the farmers since they are not necessarily able to implement it. As the example, making rain guard or a shelter for latex so that rainwater does not enter into the latex shelter. The material is something interesting for farmers to learn, but because the way of delivering the information is limited to lectures and discussions without the support of direct demonstrations, most farmers are unable to apply the information in their rubber farming.

The accuracy of the channel in the form of props used by extension agents in the Kuantan Singingi District has been quite effective in making it easier for farmers to understand the purpose of the information provided. The instructor uses two methods of advisory, which include direct discussion and the use of the projector as an extension media, depending on the material and information available to the extension agents. Extension agents use the projector at the time of presentation, the display of the power point used by them is quite interesting because it contains a lot of photos that make it easy for farmers to capture the information presented. Especially for farmers who can't read.

The information or material provided by the extension agents was sufficient to meet the needs and wants of the farmers. Extension officers always include the latest and best information in their assistance. This technique prevents farmers from getting bored of obtaining information or participating in extension activities, even though some of the information provided is information that has been displayed repeatedly. Farmers who have participated in so many extension activities believe that the material presented is a material that has been generated repeatedly as if it had a boring effect, but only a few farmers think that way. In fact, several other farmers have not yet acquired this material.

Number of Information Sources

Information and the level of worker satisfaction have an impact on communication within the organization (Semegin, 2012). Adequate and accurate information sources, both oral and oral, will support communication (Agarwal, 2012).

The number of sources of information received by farmers, either through direct extension or through media such as magazines, cell phones, television and other media sources, will change the concepts that exist within these farmers, and will then form a new concept that is an adaptation of old information with a number of information.

TABLE 14. Number of Information Sources on Rubber Farming knowledge

No.	Description	Answer	%	Score	category
1.	Number of information about rubber farming	1 = 26 persons	18,18		
		2 = 64 persons	44,76	2,19	Medium
		3 = 53 persons	37,06		
2.	Number of information sources about rubber farming	1= 40 persons	27,97		
		2= 81 persons	56,65	1,87	medium
		3= 22 persons	15,38		
Total score				4,06	
Average score				2,03	medium

The table above shows the number of sources of information obtained by rubber farmers in Riau Province on rubber farming is. It can be seen that it is in the medium category with 2,03 as the average score. Mostly of the rubber farmers received 3 out of 4 pieces of information including production facilities (seeds, fertilizers, pesticides, coagulation, stimulants latex, and equipment), cultivation (planting and planting distances, plant maintenance, tapping techniques, how to make shade shelters / rain guard), marketing (latex sales systems and market prices) and supporting institutions (farming groups and government policies). Some farmers are unaware of marketing information, such as pricing. Because the price is exclusively in the hands of tauke. Farmers who sell their crops on the auction market can only choose the tauke that places a higher price on their rubber, but farmers do not have the ability to set the price.

While in Kuantan Singingi, there are already quite a lot of information sources owned by farmers. One of the source of information is from the department that provides training to rubber farmers. Farmers have a quite good knowledge about rubber cultivation, since the farmers also get more from other farmers who want to share their experiences from other training outside the district such as Pekanbaru. Another important sources of information are from the extension agent who are very active in rubber plantation. One of the Kuantan Singing plantations officer said that he was the most active extension agent in Kuantan. Rubber traders and factory workers are also the source of information for farmers in informing the price of rubber, fertilizer, pesticides, stimulants, coagulants and other production facilities.

ELEMENTS OF COMMUNICATION

Communication means the transmission and receiving of a message or news from two or more persons to make it comprehensible. Communication with elements of communication may take place. Communicators, messages, media, communicants, effect, feedback, and the environment are the communication elements of plantation farmers. These can be seen in the following table.

TABLE 15. Communication elements for plantation farmers

Communication elements	Upstream Subsystem	On-farm Subsystem	Downstream Subsystem	Support Subsystem

Communicators	• Extension officers • Management of farmer group • Fellow farmer • Farmers in other areas • Trader	• Extension officers • Management of farmer groups • Fellow farmer • Farmers in other areas	• *Gapoktan* administrator (farmer groups association) • Management of farmer group • Trader	• Extension officers • Management of farmer groups • Fellow farmer • Farmers in other areas
Message	• Seeds, fertilizers, pesticides, and equipment procurement	• Land clearing • Seed selection • Seed treatment • Spacing • Planting • Plant Maintenance (weed control, fertilization, and pest control) • Harvesting • Rejuvenating	• Rubber selling • Market price	• Government policy • *Gapoktan* / Auction (Rubber price and production input procurement) • Farmers' groups
Media	• Face-to-face meetings; (lectures and discussions) • Infocus and whiteboard • Brochures • Mobile phone	• Face-to-face meetings; (lectures and discussions) • Infocus and whiteboard • Brochures • Mobile phone • Internet	• Face-to-face meetings; (discussions) • Mobile phone	• Face-to-face meetings; (lectures and discussions) • Infocus and whiteboard • Brochures • Mobile phone
Communicant	• Plantation farmers • Extension officers • Management of farmer group	• Plantation farmers • Extension officers • Management of farmer group	• Plantation farmers • *Gapoktan* administrator • Management of farmer group • Trader	• Plantation farmers • Extension officers • Management of farmer group
Effect	• Modification of knowledge • Changes in attitudes and feelings. • Changes in actions and behavior	• Modification of knowledge • Changes in attitudes and feelings. • Changes in actions and behavior	• Modification of knowledge • Changes in attitudes and feelings. • Changes in actions and behavior	• Modification of knowledge • Changes in attitudes and feelings. • Changes in actions and behavior
Feedback	• Farmers receive information and then respond to and apply information to their farms.	• Farmers receive information and then respond to and apply information to their farms.	• Farmers receive information and then respond to and apply information to their farms.	• Farmers receive information and then respond to and apply information to their farms.
Environment	• Physical environment (village hall, office, *Gapoktan*)	• Physical environment (village hall, office, *Gapoktan*)	• Physical environment (village hall, office, *Gapoktan*)	• Physical environment (village hall, office, *Gapoktan*)

• Psychological environment (friendly counseling atmosphere) • The dimension of time (adjusts to farmer time)	• Psychological environment (friendly counseling atmosphere) • The dimension of time (adjusts to farmer time)	• Psychological environment (friendly counseling atmosphere) • The dimension of time (adjusts to farmer time)	• Psychological environment (friendly counseling atmosphere) • The dimension of time (adjusts to farmer time)

Communicator

Communicators or information sources are parties as information makers or providers. In the field of agricultural communication, the communicators are those who offer information on agriculture. Communicators in communications for plantation farmers include extension workers, farmers group leaders, fellow farmers, *Gapoktan* managers, traders, and other local farmers.

Farmers can receive information from extension agencies, farm group administrators, fellow farmers, traders, and other local farmers regarding the upstream subsystem, on-farm subsystems, and supporting institution subsystems. Meanwhile, farmers will receive information from *Gapoktan* managers and farmers' groups for downstream subsystem information. Fellow farmers, extension workers, and farmers' groups are the most active communicators contacted by farmers in providing information about the plantation.

Message

Message in this term means information and farming knowledge provided to independent smallholders by the communicator. The message conveyed by the communicator may be in the form of knowledge, information, motivation, or advice on the activities of farmers in farming.

The message consists of four subsystems: the upstream, the on farm, the downstream and the support subsystems. The information transmitted in the upstream subsystem concerns the provision of inputs in the form of seeds, fertilizers, pesticides and equipment. Good seed based on extension agent recommendations is certified seedlings. Urea, potassium chloride (*KCl*), dolomite and rock phosphate are recommended for fertilizers by extension agents and traders, while the recommendations for pesticides must be adjusted to plant threats. Herbicides are used by farmers to treat weeds and insecticides for insect pests in planting crops. Traders also provide information in such a way that the equipment used is always sharpened so that it is sharp and makes it easier for farmers to work on plant maintenance and harvesting. Information on harvesting from extension workers and farmer group managers is that rubber harvesting is carried out every day.

Downstream subsystem information provided by the managers of the *Gapoktan* and farmer groups is about marketing, which consists of selling crops and market prices. The price information obtained by *Gapoktan* farmers is the price from manufacturing companies and farmers are free to sell their products to their desired manufacturing company. Then the information on the criteria for harvesting desired by the manufacturing facility, namely: the

rubber should not contain much shaving, the water absorption is not high, the rubber material is not mixed with others.

Information relating to support systems means the institutions supporting farming carried out by farmers in the form of farmers' groups, *Gapoktan*, and government policies. The information relates to the role of farmers' groups in supporting cultivation activities through the provision of information services, the development of production and cultivation techniques. Information about *Gapoktan* is about the information services, the development of production and cultivation techniques. Information on government policies focuses on plant rejuvenation policies.

Media

Media is an intermediary tool that can be utilized to provide the farmer with information from the communicator. Facilities are needed to support extension activities so that what is conveyed can reach target groups, such as the empowerment of farmer communities.

The media used to provide information about cultivation, particularly regarding face-to-face meetings in which messages are transmitted orally. Through lecturing and debate, the communicators deliver the information by using a projector, brochure, and whiteboards to displays the materials to be delivered. Sometimes farmers also send messages or information through short messages, because sometimes farmers are unable to attend meetings and still want to know the outcome of the meeting.

Communicant

The communicant is the person that receives the message conveyed by the communicator or the sender of the message. The recipient of this message is expected to change their behavior or thoughts after the message has been delivered. The communicants in this study were independent rubber plant farmers and traders. It is hoped that the information transmitted by the communicators can be understood by the farmers in such a way that the objectives can be properly achieved.

Communication is a two-way reciprocal interaction between two or more people. There are times when communicators can become communicants and vice versa, for example, there is group communication between extension workers /farmers' groups and the farmers. The farmers convey their problems in the field to extension workers /farmer's group managers. Consequently, the position of farmers is as communicators who convey messages about problems encountered in plantations and extension workers/managers of farmer groups as the communicants at that time.

Effect

According to Widjaja (2010) effect is a result of communication such as behavior or desired attitude of a person. If other people's attitudes and behavior are appropriate, it means that communication is successful. The impact of farmer communication is a change in knowledge (cognitive), feelings and attitudes (affective) and behavior and action (conative).

Farmers' communication causes changes in personality aspects, such as openness, sympathy, supportive attitudes, positive attitudes, and equality.

Feedback

Feedback is the response of a communicant (message recipient) when a communicator (message provider) sends a message. In short, feedback means a response to a message. Feedback is also a form of assessment of whether the communication that has taken place has been successful or not. Feedback may be either a positive response or a negative response.

The feedback given by farmers as communicant to communicator such as extension workers, farmer group administrators, *Gapoktan* administrators, fellow farmers receives information by listening and asking then the farmer applies this information to agriculture. Farmers may also argue that there is something they feel is not in line with their opinion, and then discuss it with the communicator who provides information. Feedback from farmers in the form of media (internet, social media, newspapers and magazines) to communicator is varied, if the information the farmer receives is considered beneficial, then the farmer carries out information, but if he doesn't do so, he will usually take action against this data. Farmers always provide positive feedback on the information they feel is beneficial to the farming they do and to themselves.

Environment

Some factors that can influence the course of communication are the environment or situation. This factor is divided into four different types: physical, socio-cultural, psychological and time dimension. The physical environment in this communication process, that is, the extension activity takes place in the village hall, the rubber auction system association office, *Gapoktan* and some are carried out directly in the field where the extension agent visits the land directly.

In terms of psychological environment, the farmers and the extension workers provide a friendly atmosphere at the time of the extension activity to give pleasant advice so that the farmers are happy to attend if there are no obstacles. The time dimension for the implementation of the extension activities does not have a fixed timetable, the extension is conducted based on whether farmers can participate in the extension services and the extension is usually carried out in the morning until noon.

CONCLUSION

1. Internal characteristics of rubber farmers 96.5% of the productive age (15-65 years); 61.5% are in high school education; the number of dependents between 1-6 people (53% of dependents between 3-4 people); 56.6% of farmers between 3-17 years of age; 79% of land holdings > 0.5-2 ha; and the cosmopolitan level of the respondent is medium. External characteristics with respect to the extension intensity, the extension accuracy channel and the number of information sources in the medium category.
2. The elements of communication on plantation farmers include: (a) Communicators consisting of extension workers, farmer group managers, fellow farmers, *Gapoktan*

administrators, traders and other local farmers; (b) Message on plantation agribusiness starting from the upstream subsystem, on-farm subsystem, downstream subsystems and support subsystems; (c) The media used are face-to-face meetings, the communicators convey messages by oral means, such as lectures and discussions; (d) The communicants are independent rubber farmers and traders; (e) The effect of changes in cognitive, affective and conative aspects change the personality aspects such as openness, sympathy, supportive attitudes, positive attitudes and equality; (f) Feedback from farmers to the communicator is receiving the information that can be applied on farming, (g) Physical environment in the process of communication is conducted in the village hall, *KUB* (joint group business) and also in rubber fields.

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